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# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 11165362  
PUBLICATION DATE : 22-06-99

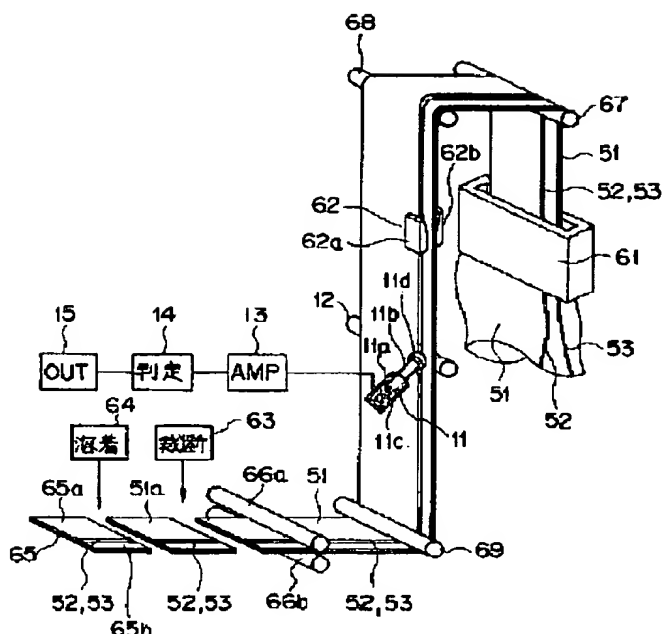
APPLICATION DATE : 03-12-97  
APPLICATION NUMBER : 09333224

APPLICANT : TOSHIBA ENG CO LTD;

INVENTOR : KURITA EIJI;

INT.CL. : B31B 1/90 A44B 19/42 B65D 33/25

TITLE : FASTENER INTERMESHING  
DETECTOR FOR PACKAGING BAG  
WITH FASTENER



**ABSTRACT :** **PROBLEM TO BE SOLVED:** To rapidly stop the traveling of a cylindrical body when a smooth intermeshing operation fails by causing a detector to constantly slide into contact with a fastener part from the outer face of the cylindrical body at a specified contact pressure after intermeshing the fastener, and detecting the thickness of the fastener after its fastening to determine the fastening state.

**SOLUTION:** A sensor 11 for detecting the thickness of a fastener part is installed between a jig 62 for intermeshing a fastener while a cylindrical body 51 is traveling and a cutting means 63. Further, the members 52, 53 of the fastener of the cylindrical body 51 are caused to travel while being held between the sliding contact piece 11d and a fixed roller 12 of the sensor 11. The sensor 11 indicates a detected constant thickness level as long as both members 52, 53 of the fastener are satisfactorily intermeshed. On the other hand, at spots where the members 52, 53 are not intermeshed, the sensor 11 indicates an augmented change level of the thickness to be detected. The intermeshed state of the members 52, 53 is monitored based on the thickness detected of the intermeshed parts. Thus it is possible to stop the traveling motion of the cylindrical body 51 rapidly whenever the intermeshing action of the members 52, 53 of the fastener fails.

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